01/02/21

(Starter) O LO: Can I recap my knowledge of converting units of measure like mass (kg and g)?

Complete the starter activity below on converting between kilograms (kg) and grams (g). For guidance on this, see the weekly input video.

Remember...

_____g is equal to (or the same as) 1kg.

Grams to kilograms = _____

Kilograms to grams = _____

Convert these lengths in to the unit of measure given...look carefully!

a) 2000g = _____kg

b) 5000g = _____kg

c) 9000g = _____kg

d) 5040g = _____kg

e) 250g = _____kg

f) 675g = _____kg

g) 480g = _____kg

h) 1.5kg = _____g

i) 3.5kg = _____g

j) 1.25kg = _____g

k) 0.9kg = _____g

l) 8.64kg = _____g

m) 0.025kg = _____g
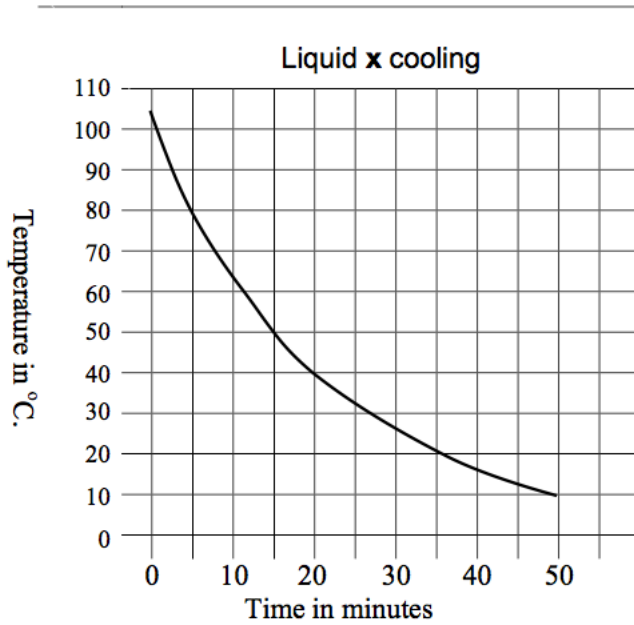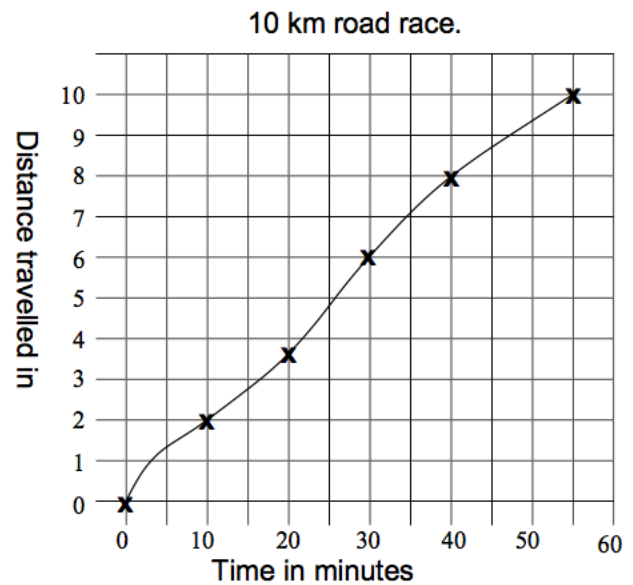
n) 0.63kg = _____g

01/02/21

(Main) O LO: Can I start to interpret line graphs and describe the information that they show?

Look at the line graphs below. Can you identify what it is that each graph is attempting to show us and describe this in a sentence?
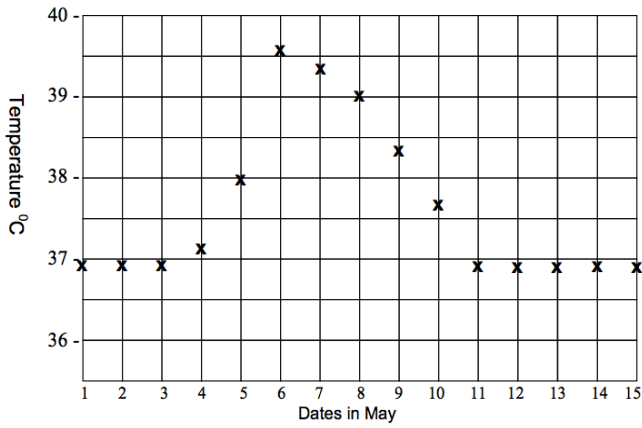
Liquid x cooling

Temperature in °C.

110
100
90
80
70
60
50
40
30
20
10
0

0   10   20   30   40   50

Time in minutes

This is a graph to show _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

This is a graph to show _____

_____

_____

_____

_____

_____

_____

_____

_____

10 km road race.

Distance travelled in

10
9
8
7
6
5
4
3
2
1
0

0   10   20   30   40   50   60

Time in minutes

Chris was ill during May.

Temperature °C / Dates in May

This is a graph to show _____

_____

_____

_____

_____

_____

_____

_____

This is a graph to show _____

_____

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_____

Mobile ——— Land line ············

Cost of phoning

Length of phone call in hours
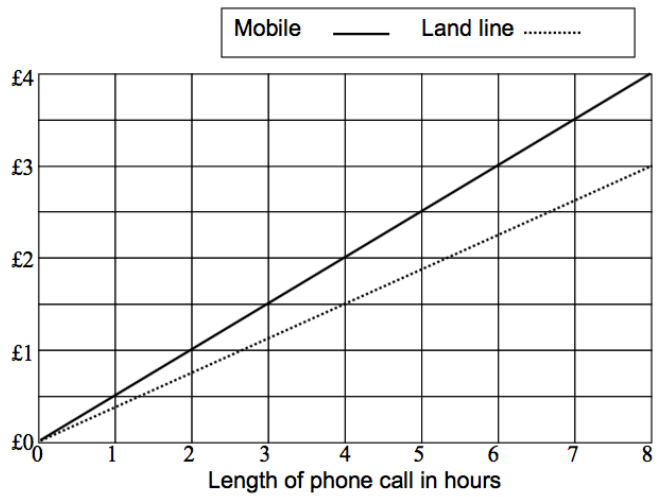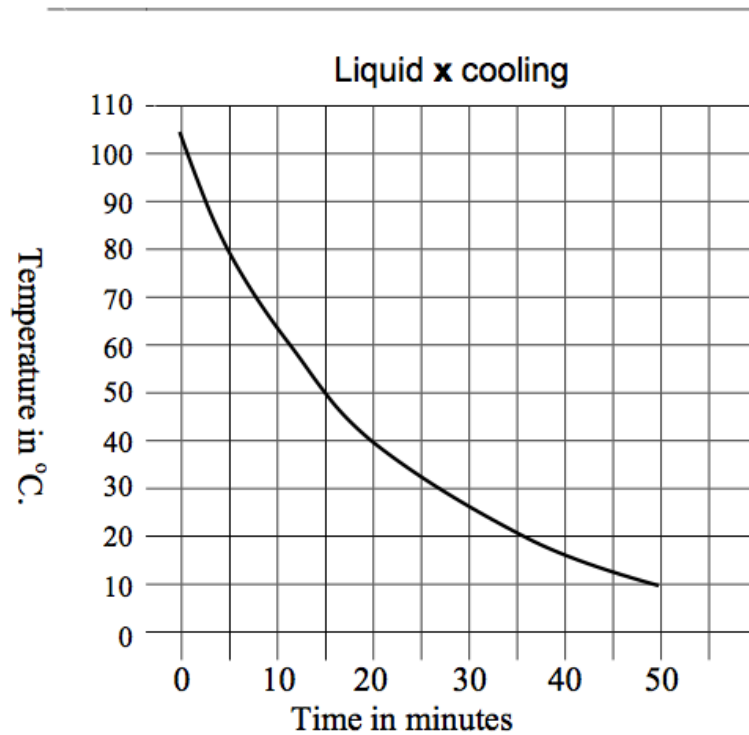

After looking at each line graph and identifying what it may be trying to show, answer the questions on each graph below:

Liquid X was heated in the science lab until it reached boiling point.
It was then left to cool.

The graph below shows how the temperature of liquid **x** changes as it cools.

Liquid **x** cooling

Temperature in °C.

Time in minutes

1. Read from the graph how many minutes the liquid took to reach a temperature of 50^0C.

minutes

2. How many minutes was the temperature above 40^0C ?

minutes

3. How long did it take to cool from 80^0C to 20^0C ?

minutes

Jim entered a 10 kilometre running race.
This is a graph to show how far he had gone at different times.

10 km road race.
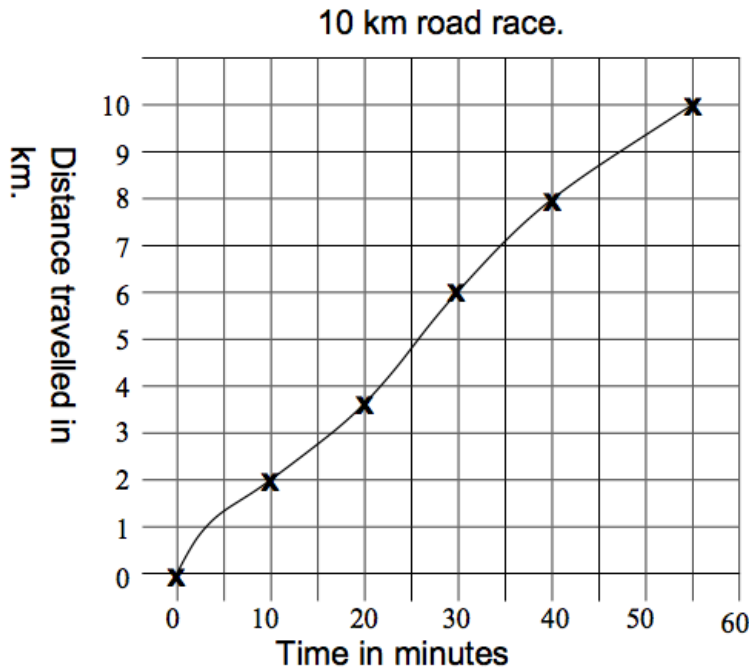
1. How far did Jim run in the first 10 minutes of the race?

2. How far had he run after 40 minutes?
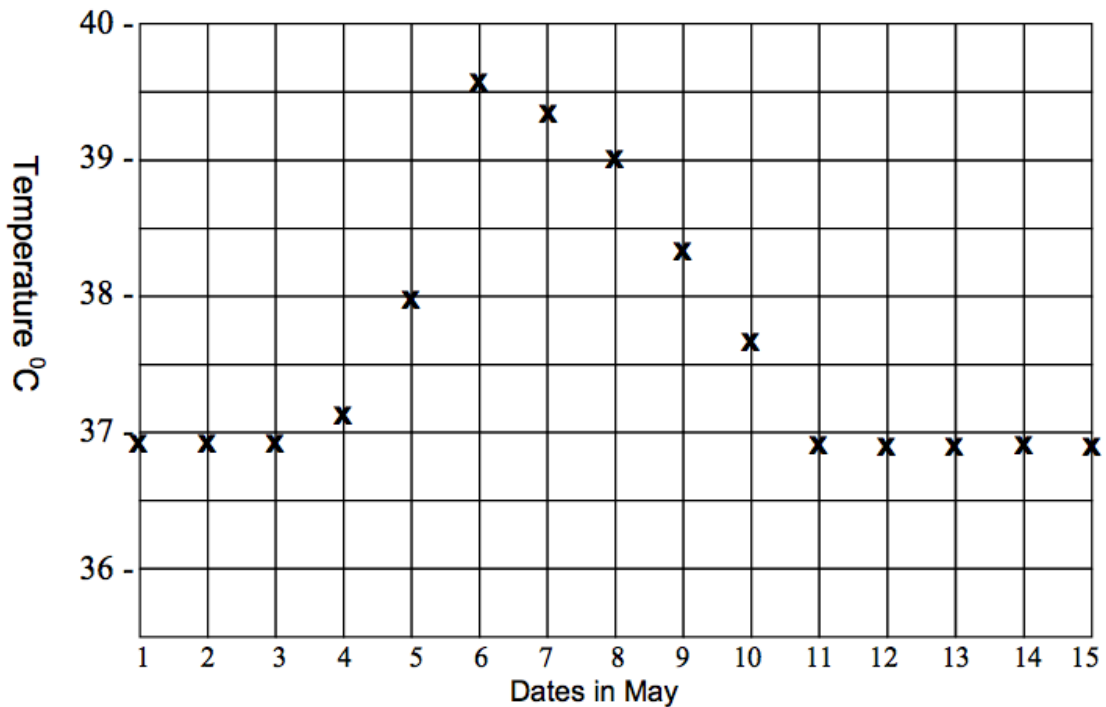
3. What time did he finish the race in?

4. Jim says,
   "I ran further in the first 20 minutes than the last 20 minutes."
   Explain how the graph shows this.

....

....

....

Chris was ill during May.
This is the chart showing his temperature.

1. For how many days was his temperature
   marked as more than 37^{0}C ?

days

2. Use the graph to estimate Chris's temperature
   on 6th May.

^{0}C

3. Which date showed the first drop in temperature
   from the day before?

4. Which date showed the greatest rise in temperature
   from the day before?

5. Approximately what is the difference between
   the lowest and highest temperatures shown?

^{0}C

This graph shows the cost of phoning abroad from a mobile or from a land line.

Mobile ——— Land line ···········

Cost of phoning

Length of phone call in hours
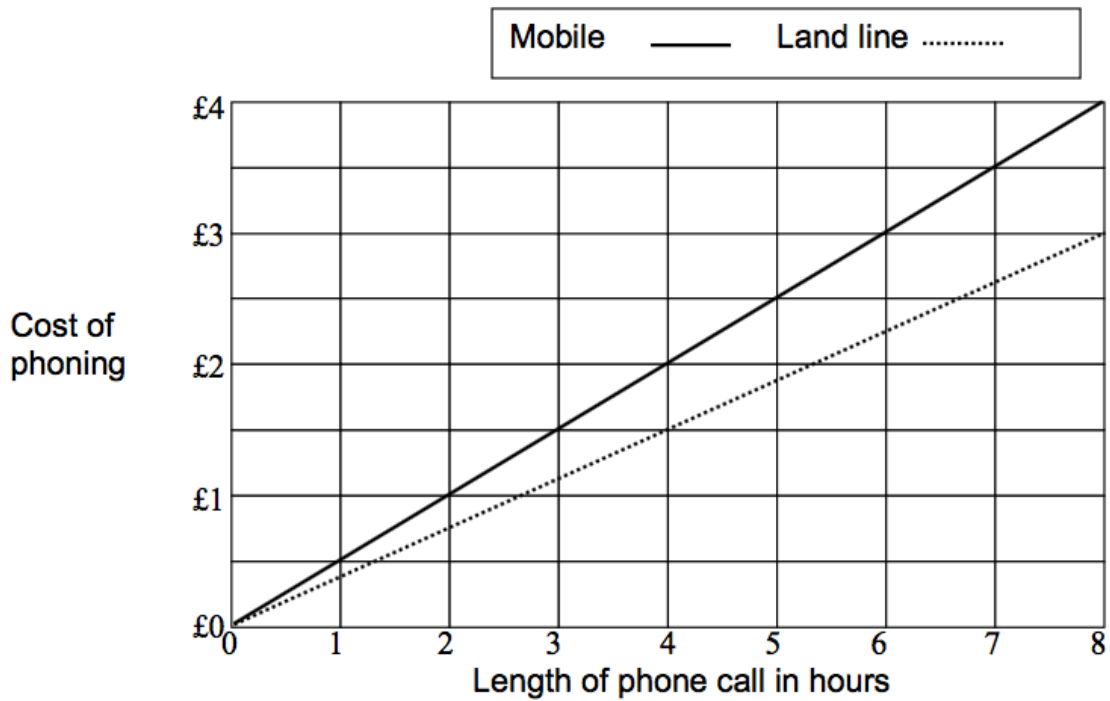
1. How much does it cost to phone for 3 hours on a mobile phone?   £

2. How much does it cost to phone for 8 hours on a land line?   £

3. How much more does it cost to phone for 4 hours on a mobile than on a land line?   £

4. Approximately how much is it to phone for 6 hours on a land line?   £

Page 13
1. 15 **minutes**   **2.** 20 minutes   **3.** 30 minutes

Page 14
1. 2 km   **2.** 8 km **3.** about 55 minutes
4. Explanation which implies that in the first 20 minutes Jim ran more than 3 ½ km but he started the last 20 minutes past the 7 km mark so had less then 3 km to go.

Page 15
1. 7 days   **2.** between 39.5^0C and 39.7^0C   **3.** May 7
4. May 6   **5.** approx 2.7^0C allow 0.1 either side

Page 16
1. £1.50   **2.** £3.00   **3.** £0.50 or 50p   **4.** approx £2.25 allow 10p either side.